

Liver Shrinkage Diet for Laparoscopic Bariatric Surgery

Information for Patients

Aim of the Liver Shrinkage Diet

Prior to undergoing bariatric surgery most people will be asked to follow a strict liver reducing diet for 2 weeks prior to surgery.

In order to perform laparoscopic bariatric surgery your liver has to be lifted up and out of the way for the surgeon to visualise and operate on the stomach underneath. Most people who require bariatric surgery will also have a large, fatty liver. This makes the liver less flexible to move and can also increase the chance of bleeding.

By following the liver shrinkage diet your body will be forced to use up glycogen (carbohydrate which is stored in the liver) and fat stores. This helps to shrink the size the liver, making it softer and therefore easier to move during your surgery.

Your surgery may be abandoned or cancelled on the day if you do not follow this essential diet.

What is a Liver shrinkage diet?

You may decide between the following:

A low calorie, low carbohydrate, low fat and moderate protein food-based diet below.

Or

Liquid based diet of 3 pints of skimmed milk + 2 x 125g low fat yoghurts per day.

You must not mix between the two diet options for the entire 2-week period

Both options provide:

- 800 – 1000 kcal per day
- Below 100 g carbohydrates
- Low fat

The food-based plan:

Planning ahead and understanding the portion sizes will help you to follow this plan.

Your daily serving allowance

<i>Protein</i>	3 Portions
<i>Carbohydrates</i>	3 Portions
<i>Dairy</i>	2 Portions
<i>Vegetables</i>	3 Portions
<i>Fruit</i>	2 Portions (only as allowed snack option)
<i>Fat</i>	1 Portion

Food Groups and portion sizes

Protein	One Portion is:
Lean meat e.g. beef, skinless chicken, turkey, lamb	100 g (no bigger than the size of a pack of playing cards)
Plain white fish	150 g
Salmon	125 g
Tin of tuna (in brine or spring water)	125 g
Tin of Salmon	125 g
Cooked Ham	60 g (3-4 slices depending on thickness)
Cooked chicken/turkey (skinless)	100 g
Quorn or tofu	100 g
Eggs (Not fried or scrambled in butter)	2
Baked Beans (reduced sugar), chick peas kidney beans	4 teaspoons

Carbohydrates	One Portion is:
Weetabix/Shredded wheat	1 piece
Bread or toast	1 piece
Plain Crackers	2-3
Rice	2 tablespoons
Pasta (small shaped)	3 tablespoons
Potato	2 egg sized
Sweet Potato	1 small
Yam	60 g
Cereal (plain cornflakes/rice krispies)	3 level tablespoons
Muesli (not granola)	2 level tablespoons
Polenta (plain), Quinoa	4 level teaspoons
Crisp Bread	4 pieces

Vegetables	One Portion is:
Cooked/raw e.g. carrots, broccoli, cauliflower, peas, peppers, celery, leek	3 tablespoons
Side salad e.g. lettuce, cucumber, spring onion (no dressing, no avocado)	Cereal bowl size
Tomatoes	1 large or 6 small cherry sized tomatoes

Fruits	One Portion is:
Apple, pear, orange, banana	1 piece
Strawberries, raspberries	7
Grapes	12
Melon	1 slice
Plum	2
Fruit Juice	100 ml

Dairy	One Portion is:
Skimmed milk/ soy milk	1/3 pint (includes in tea and coffee)
Yoghurt (low fat)/ soya yoghurt	1 small pot 150 g
Cottage cheese	1 pot 200g
Fromage Frais	1 small pot 150 g
Low fat cheese e.g. cheddar, edam	1 small matchbox sized piece

Fats	One Portion is:
Oil (for cooking)	1 teaspoon per day only
Low fat spread	2 teaspoons per day

Tips for adding flavour:

Use lemon juice, balsamic vinegar, spices, herbs, garlic, chilli and seasoning.

You must avoid salad dressings, mayonnaise, salad creams.

Your menu should follow the following format.

Breakfast: 1 carbohydrate portion

1 dairy portion

Examples: 1 Weetabix with skimmed milk from your allowance

Or

Toast with reduced fat spread + 150 g low fat yoghurt

Or

2 tablespoons muesli with 150 g low fat plain yoghurt

Or

4 Crispbreads with matchbox size cheese

Lunch: **No carbohydrates**

2 protein portions

2 vegetable portions

Examples: Grilled chicken breast 200 g with large mixed salad (2 cereal bowl as size)

Or

Tinned salmon 200 g with small mixed salad and tomato

Or

White fish 250 g steamed with 6
tablespoons (tbsp) vegetables

Or

2 eggs + 60 g Ham or Turkey and large
mixed salad

Evening Meal: 2 carbohydrate portions
1 protein portion
1 vegetable portion
1 dairy portion

Examples: Jacket potato (small) with 125g Salmon with
small salad. 1 pot fat free yoghurt

Or

6 tbsp pasta with 4 tbsp bolognese sauce,
15 g grated cheese

Or

2 egg Omelette with 3 tbsp vegetables e.g.
pepper and mushroom
with 4 new potatoes

1 pot fat free yoghurt

Snacks: Maximum 2 pieces/ portions of fruit taken at
any time of the day

Examples: 1 banana or 1 orange

*You should aim to drink at least 2 pints of fluids per day to prevent dehydration. Water, tea and coffee without sugar and sugar free drinks can be taken freely. **You must avoid alcohol and fizzy drinks. Milk in tea and coffee should only be taken from your daily allowance! Remember if you drink 1/3 pint of milk in cereal, tea or coffee you only have 1 dairy allowance left.***

The liquid-based plan:

This diet is a liquid based meal replacement option. You do not consume any other food sources.

Daily Intake

Liquid Options	Servings
Skimmed <i>Or</i> Semi skimmed milk <i>Or</i> Soya milk <i>Or</i> Lacto free milk	3 pints per day The milk can be served either hot or cold and can be flavoured with sugar free syrups e.g. Crusha or Monin or Vanilla Essence
Low fat natural or plain yoghurt <i>Or</i> 0% fat yoghurt	2 x 125 g Portions per day
Bovril/Marmite/Stock (2 teaspoons in hot water)	Up to twice per day

Example day:

- Breakfast:** 500 ml milky coffee
125g fat free yoghurt
- Snack:** 300 ml glass of sugar free syrup flavoured milk or plain
- Lunch:** Bovril or Consommé drink
Cup of tea with 100 ml milk
- Snack:** 300 ml glass of milk
- Evening meal:** Oxo drink
125g low fat natural yoghurt
Cup of tea or coffee with 100 ml milk
- Snack:** 200 ml glass of milk

*You should aim to drink at least 2 additional pints of fluids per day to prevent dehydration. Water, tea and coffee without sugar and sugar free drinks can be taken freely. **You must avoid alcohol and fizzy drinks. Milk in tea and coffee should only be taken from your daily allowance! If you need to sweeten your tea or coffee use a sweetener.***

Frequently Asked Questions

What if I have diabetes?

If you have diabetes and are on insulin or certain tablets you may need to alter the amounts while following this diet, this will ensure your blood glucose does not get too low. If you monitor your blood glucose you should continue to do this. You should consult your GP or diabetes specialist nurse or practice nurse prior to starting the diet.

Are there any risks to the diet?

Because the diet is low in calories and carbohydrates you may feel more tired than usual, or light headed. You may also find concentration harder than usual. If this happens ensure you are taking the recommended portions for all foods/liquids and maintaining your hydration. Ensure you are spreading your meals throughout the day without long gaps between. You should not follow the diet for longer than the recommended two weeks.

Should I take vitamin and mineral supplements?

The diet is very restrictive, it is recommended that you take a general A-Z vitamin and mineral supplement if following the food-based plan. **This is essential if following the liquid-based plan.**

When do I stop the diet?

You should continue until midnight the night before your surgery. You will be advised when you need to be nil by mouth for surgery. It can be tempting to eat one last meal before your surgery. This can reverse the benefits of the diet and will prevent your surgery from happening.

Will my bowel habits change?


It is likely your bowels may be less frequent than usual whilst following the diet. Ensure you are achieving your full fluid recommendations. Gentle exercise can also help.



Please use this space for your notes

Further information and advice can be obtained from:

NHS 111
NHS Choices online

 **111**
www.nhs.uk

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Telephone:  01622 224960 or  01892 632953

Email: mtw-tr.palsoffice@nhs.net

or visit their office at either Maidstone or Tunbridge Wells Hospital between 9.00am and 5.00pm, Monday to Friday.

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